Please read and send in as full a discussion as possible at earliest date.

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## THE GRAND RIVER, ONTARIO PENINSULA.

Effect of Deforestation and Swamp Drainage.

By W. H. BREITHAUPT, M. Can. Soc. C. E.

(Read before the General Section, 14th December, 1905.)

The peninsula of South-Western Ontario is remarkable for the great bodies of fresh water surrounding it. Taking as north-easterly limit the shortest line between Georgian Bay and Lake Ontario the area of the peninsula is 16,500 sq. miles. The area of the abutting bodies of water, Lake Huron, Lake Erie, and part of Lake Ontario, is 33,900 sq. miles, while adjoining Lake Huron on the West and North-West are Lake Michigan, 25,000 sq. miles, and Lake Superior, 32,000 sq. miles.

In topography the Peninsula presents what may be called a table land, comprising parts of the counties of Grey, Wellington, and Dufferin (see map, Plate 1,) from which the surface slopes in every direction, abruptly to the North, where the fall is over 1,100 feet in a little more than twenty miles, more gradually towards the West and still more so towards the South-West and South, to the almost level rim of surrounding water, the difference in level between Georgian Bay and the inlet of the Niagara River, i.e., between Lake Huron and Lake Erie, being only about nine feet. In general the surface is rolling. A broad, flat area extends for the greater part from the outlet of Lake Huron along the southerly limit of the peninsula almost to Lake Ontario. A peculiar feature is the Niagara escarpment, an abrupt rise of 200